

**REMARKS**

Claims 1-14 are pending in this application. By this amendment, claims 1 and 8 are amended. No new matter is added. Reconsideration of the application is respectfully requested.

Applicants gratefully appreciate the courtesies extended to Applicants' representative by Examiner Paula during the October 26 personal interview. The points discussed are incorporated into the following remarks, and constitutes Applicant's Summary of the interview.

**I. Information Disclosure Statement**

An Information Disclosure Statement with Form PTO-1449 was filed in the above-captioned patent application on January 2, 2002. The Examiner initialed and returned to the undersigned a copy of the Form PTO-1449 with the August 25, 2004 Office Action. However, the Examiner did not initial the box next to the EP 0 902 379 A2 reference to acknowledge the fact that this listed reference has been considered. Additionally, the Examiner drew a line through the listed reference of U.S. Patent Application No. 09/738,992 (now U.S. Publication No. 2002-0078088 A1) indicating that the reference has not been considered.

Applicants submit that these references are in conformance with MPEP §609. Thus, the Examiner is requested to consider the references identified above, and to initial the box corresponding to the listed references identified above and return a copy of the Form PTO-1449. Applicants respectfully request that the Examiner consider the references discussed above, and return a copy of the initialed Form PTO-1449 with the next Office Action.

**II. Rejections under 35 U.S.C. §102(b)**

The Office Action rejects claims 1-5 and 8-12 under 35 U.S.C. §102(b) over U.S. Patent No. 5,659,639 to Mahoney et al. ("Mahoney"). Applicants respectfully traverse the rejection.

Mahoney does not disclose an apparatus or method for generating a summary of a document including "extracting portions of the document, the extracted portions being identified by the detected annotations, and generating a summary including only the extracted portions of the document," as recited in independent claims 1 and 8.

The Office Action asserts that Mahoney discloses receiving a document with an input image set having editing marks via a scanner, detecting or distinguishing the editing marks from a graphical features in the document, and outputting a version of the scanned document in which the editing operation has been performed. See Figs. 1 and 4. Notwithstanding these assertions, Mahoney does not teach or suggest extracting portions of the document and generating a summary of the extracted portion, as set forth in claims 1 and 8.

Mahoney discloses an apparatus and method including obtaining an input image set having graphical features 12, 14 and editing components 22, 24, 26, 28. See Fig. 1, and col. 11, lines 47-56. Mahoney discloses, in Fig. 4, three specific examples of input image sets. See col. 14, lines 16-17. In one example, the input image set includes an image 108 having a graphical feature and editing marks formed with a type of mark that is distinguishable from the graphical feature. See col. 14, lines 46-49. Mahoney discloses that the image 108 includes editing marks made to the document prior to the document being scanned by a scanner 130. See Fig. 4.

Mahoney also discloses that the machine automatically obtains operation category data 30 indicating a type of the editing components 22, 24, 26, 28. See col. 11, line 57 - col. 12, line 8. Then, the machine automatically uses the operation category data 30 to obtain data

defining an image of a sheet 32 which is an output image of the input image set in which editing operations have been performed. See col. 12, lines 8-12. In other words, Mahoney discloses a machine and method for editing an original document according to editing marks, and outputting the edited version of the original document based on the editing marks.

For example, Mahoney discloses, in Fig. 14, an original image 530 including a number of geometric objects and the word "circled," an overlay image 532 including a number of editing marks, and an image 534 showing the overlay image 532 superimposed on the original image 530 to form an input image set. See Fig. 14, and col. 27, lines 33-38.

As shown in Fig. 14, an output image 536 is an edited version of the image 534, or the original image 530 which has been edited according to the editing marks of the overlay image 532. See col. 27, lines 39-52. Accordingly, an elliptical geometric object, which has not been edited, still remains in the output image 536. Therefore, Mahoney does not disclose extracting portions of the image 534. According to Mahoney, the entire image 534 is edited according to the instructions associated with the editing marks, and an edited version of the entire image 534 is output as the output image 536. Thus, Mahoney does not teach or suggest extracting portions of the image 534, and generating an output image including only the extracted portions.

In the apparatus and method of claims 1 and 8, portions of an original digital image are identified by interpreted annotations and extracted, and only the extracted portions are used to form a summary. See Fig. 2, and application page 5, lines 4-7 and lines 21-26. Therefore, the summary includes only the extracted regions of interest indicated by the annotations in the original document. See application page 4, lines 2-6. Mahoney does not teach or suggest extracting portions of the original image, or generating a summary including only extracted portions, and thus does not disclose the apparatus and method of claims 1 and 8, respectively.

Therefore, independent claims 1 and 8 are not anticipated by Mahoney. Claims 2-5 and 9-12 variously depend on claims 1 and 8, and thus are also not anticipated by Mahoney. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

### **III. Rejections under 35 U.S.C. §103(a)**

The Office Action rejects claims 6-7 and 13-14 under 35 U.S.C. §103(a) over Mahoney in view of U.S. Patent No. 6,751,779 to Kurosawa et al. ("Kurosawa"). Applicants respectfully traverse the rejection.

As discussed above, Mahoney does not teach or suggest an apparatus and method including "extracting portions of the image of the document, the extracted portions being identified by the annotations, and generating a summary including only the extracted portions of the document," as recited in claims 1 and 8. Kurosawa does not remedy the deficiencies of Mahoney.

Kurosawa is directed to a apparatus and method for processing a document image including inputting a document image, as image data, into an image inputting section 11. See Fig. 1, and col. 4, lines 4-7. Kurosawa also teaches an image processing section 13 including an editor used to edit the original inputted image from the image inputting section 11. See col. 4, lines 10-17. As a result, it is possible to apply at least one deletion or correction to a document image after the image has been inputted by a scanner. See col. 1, lines 16-19. Therefore, editing marks are made to the input image after the input image is scanned by a scanner.

Further, Kurosawa teaches an image outputting section 14 arranged to output document images processed and outputted by an image processing section 13. See col. 4, lines 18-22. Although Kurosawa teaches deletions or additions of character images into original documents, Kurosawa does not teach or suggest generating a summary including only the deleted or added portions. See col. 6, lines 40-44. Kurosawa, like Mahoney, does not

teach or suggest extracting portions of the original document and generating a summary including only the extracted portions. Accordingly, Kurosawa and Mahoney, does not teach or suggest the apparatus and method of claims 1 and 8, respectively.

Claims 6-7 and 13-14 variously depend from claims 1 and 8, and thus would not have been anticipated by Mahoney and Kurosawa. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

**IV. Conclusion**

In view of the foregoing amendments and remarks, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-14 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

  
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Attachment:  
Form PTO-1449

Date: November 10, 2004

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Sheet 1 of 1

Form PTO-1449 (REV. 8-83)		US Dept. of Commerce PATENT & TRADEMARK OFFICE		ATTY DOCKET NO. 110915		APPLICATION NO. 09/982,024	
INFORMATION DISCLOSURE STATEMENT  (Use several sheets if necessary)				APPLICANT(S) Ercan e. KURUOGLU et al.			
				FILING DATE October 19, 2001		GROUP 2176	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	
		5,384,703	1/95	WITHGOTT et al.			
		5,384,863	1/95	HUTTENLOCHER et al.			
		5,491,760	2/96	WITHGOTT et al.			
		5,570,435	10/96	BLOOMBERG et al.			
		5,638,543	6/97	PEDERSEN et al.			
		5,687,254	11/97	POON et al.			
		5,689,716	11/97	CHEN			
		5,748,805	5/98	WITHGOTT et al.			
		5,848,191	12/98	CHEN et al.			
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	
		0 902 379 A2	3/99	EPO			
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)							
		U.S. Patent Application No. 09/738,992, "Method and Apparatus for Collaborative Annotation of a Document, December 19, 2000.					
		F. R. CHEN et al., "Extraction of Thematically Relevant Text from Images," <u>Fifth Annual Symposium on Document Analysis And Information Retrieval</u> , April 15-17 1996, Las Vegas, Nevada.					
		F. R. CHEN et al., "Summarization of Imaged Documents without OCR," <u>Computer Vision and Image Understanding</u> , Vol. 70, No. 3 pp. 307-320, June 1998.					
		C. HASS, <i>Writing Technology: Studies on the Materiality of Literacy</i> , The Pennsylvania State University, Lawrence Erlbaum Associates Publishers, Mahwah, New Jersey, 1996.					
		J. KUPIEC et al., "A Trainable Document Summarizer," SIGIR95, 1995.					
		H.J. MULLER et al., "Reflexive and Voluntary Orienting of Attention: Time Course Activation and Resistance to Interruption," <u>Journal of Experimental Psychology: Human Perception and Performance</u> , V. 15, No. 2, pp. 315-330, 1989.					
		W. NEWMAN et al., "CamWorks: A Video-based Tool for Efficient Capture from Paper Source Documents," <u>IEEE International Conference on Multimedia Computing and Systems (ICMCS)</u> , Florence, Italy, June 7-11, 1999.					
		M.N. PRICE et al., "Linking by Inking: Trailblazing in a Paper-like Hypertext," <u>In Proceedings of Hypertext '98</u> , ACM Press, pp. 30-39, June 20-24, 1998, Pittsburgh, PA,					
		B.N. SCHIILIT et al., "As We May Read: The Reading Appliance Revolution," <u>IEEE Computer</u> , Vol. 32, No. 1 pp. 65-73, January 1999.					
		B.N. SCHIILIT et al., "Beyond Paper: Supporting Active Reading with Free Form Digital Ink Annotations," <u>In Proceedings of CHI 98</u> , ACM Press, pp. 249-256, 1998.					
EXAMINER				DATE CONSIDERED			
Examiner: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							